

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
13 May 2004 (13.05.2004)

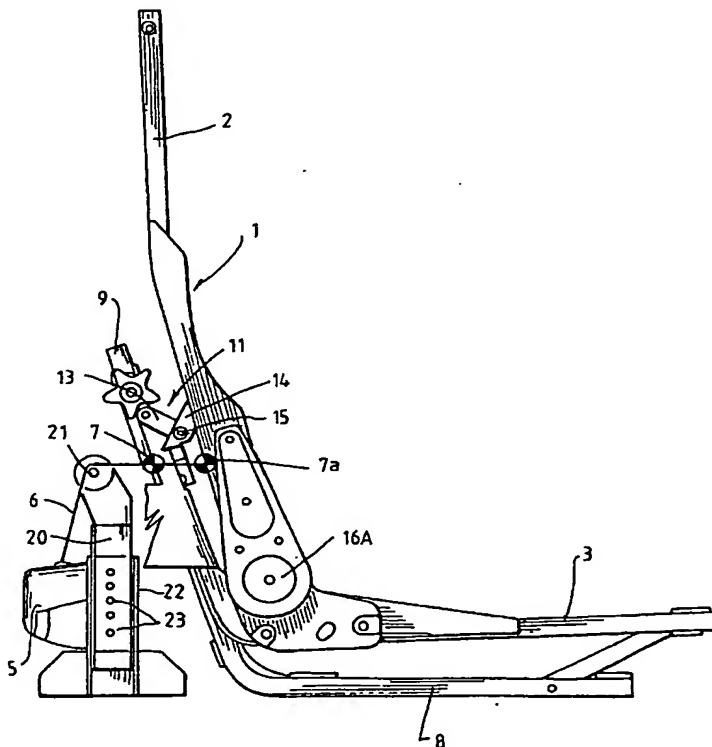
PCT

(10) International Publication Number
WO 2004/039643 A1

- (51) International Patent Classification⁷: B60R 22/22, 22/26, B60N 2/42, 2/427, B64D 25/06, B61D 33/00
- (21) International Application Number: PCT/AU2003/001440
- (22) International Filing Date: 31 October 2003 (31.10.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
2002952404 31 October 2002 (31.10.2002) AU
2003904806 3 September 2003 (03.09.2003) AU
- (72) Inventor; and
(75) Inventor/Applicant (for US only): LEWIS, Gordon [AU/AU]; c/- G & J Lewis Enterprises Pty Ltd, Unit 4, 108 Percival Road, Smithfield, New South Wales 2164 (AU).
- (74) Agent: GRIFFITH HACK; GPO Box 4164, Sydney, New South Wales 2001 (AU).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

[Continued on next page]

(54) Title: VEHICLE SEAT WITH ARRANGEMENT FOR RESISTING LOADS APPLIED TO THE SEAT



(57) Abstract: A vehicle seat (1) including an arrangement (11) for resisting loads applied to the vehicle seat (1) which comprises a seat base (3) and a seat back (2); said arrangement (11) including a link mechanism (13, 14, 15) connected between the seat back (2) and a support member (30) connected to the vehicle. The link mechanism is arranged to prevent motion of the seat (1) back beyond a predetermined position. There is also provided an adjustable tether arrangement including a tether means (4), the tether means (4) being arranged to be mounted between the seat back and a vehicle body and the tether means (4) including a tether strap (6) and a retractor mechanism (5) enabling the tether strap (6) to extend or retract in accordance with allowed motion of the vehicle seat (1).

WO 2004/039643 A1



ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU2003/001440

A. CLASSIFICATION OF SUBJECT MATTER												
Int. CL ⁷ : B60R 22/22, 22/26; B60N 2/42, 2/427; B64D 25/06; B61D 33/00												
According to International Patent Classification (IPC) or to both national classification and IPC												
B. FIELDS SEARCHED												
Minimum documentation searched (classification system followed by classification symbols)												
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched												
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) DWPI: B60R 22/-, B60R 2/42-, B64D 25/06, B61D 33/00 & keywords: rear, back, link, restrain, collapse, prevent, anchor, support, scissor, resist, recline, strap, tether, belt, harness, retract, rewind, recoil												
C. DOCUMENTS CONSIDERED TO BE RELEVANT												
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.										
X	WO 2000/050259 A1 (ANDUM HB) 31 August 2000 Page 8 lines 6-34	1, 3-7										
X	DE 19528308 A1 (MERCEDES-BENZ AKTIENGESELLSCHAFT) 6 February 1997 Figure 1	1, 3-7										
X	DE3838656 A1 (BAYERISCHE MOTOREN WERKE AG) 17 May 1990 Whole document	1, 4										
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex												
<p>* Special categories of cited documents:</p> <table border="0"> <tr> <td>"A" document defining the general state of the art which is not considered to be of particular relevance</td> <td>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td> </tr> <tr> <td>"E" earlier application or patent but published on or after the international filing date</td> <td>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td> </tr> <tr> <td>"O" document referring to an oral disclosure, use, exhibition or other means</td> <td>"&" document member of the same patent family</td> </tr> <tr> <td>"P" document published prior to the international filing date but later than the priority date claimed</td> <td></td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family	"P" document published prior to the international filing date but later than the priority date claimed	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention											
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone											
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art											
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family											
"P" document published prior to the international filing date but later than the priority date claimed												
Date of the actual completion of the international search 19 February 2004		Date of mailing of the international search report 25 FEB 2004										
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929		Authorized officer D.R. LUM Telephone No : (02) 6283 2544										

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU2003/001440

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 3921996 A1 (AUSTRIA METALL AG) 11 January 1990 Figures 2, 3	1, 4-7
X	EP 451035 B1 (BERTRAND FAURE AUTOMOBILE) 3 November 1993 Figures 3, 4	1, 3-6
X	DE 3813557 A1 (F PORSCHE AG) 2 November 1989 See figure 1	1, 3-17
X	US 5015010 A1 (HOMEIER et al) 14 May 1991 Whole document	8, 9, 15-17
X	EP 553062 A2 (INDIANA MILLS & MANUFACTURING, INC.) 28 July 1993 Column 6 lines 25 - 45	8, 9, 15-17
X	US 6322140 B1 (JESSUP et al) 27 November 2001 See figure 3	8, 9, 15-17
NOTE:	Any one of the documents which are relevant to claim 1 (link means) (first six of the above mentioned documents) may be combined with any one of the remainder of the above mentioned documents which are relevant to claim 8 (tether means) resulting in a "Y" category for claims 10-14	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU2003/001440

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report				Patent Family Member			
WO	0050259	AU	33401/00	EP	1163126	SE	9900649
DE	19528308	NONE					
DE	3921996	NONE					
DE	3838656	NONE					
EP	0451035	BR	9101333	CA	2039653	CS	9100798
		FR	2660606	IE	911061	JP	5286385
		NO	911191	PT	97246	US	5246271
DE	3813557	NONE					
US	5015010	CA	2037661	EP	0447364		
EP	0553062	CA	2086363	MX	9300162	US	5219206
		US	5219207				
US	6322140	CA	2155390	EP	0756974	US	5451094
END OF ANNEX							